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## POLICY RESEARCH WORKING PAPER

# Safe and Sound Banking in Developing Countries

## We're Not in Kansas Anymore

*Gerard Caprio, Jr.*

Making banking safe and sound in developing countries requires (1) paying more attention to factors that restrict banks' ability and willingness to diversify risk and (2) giving three key groups — owners (and managers), the market, and supervisors — more incentive and ability to monitor banks and ensure their prudent corporate governance.



## Summary findings

Drawing on earlier work, Caprio reviews some of the salient facts about the boom in banking busts in developing countries. He then reviews policy responses taken by authorities in some of the “early” crisis countries, and considers a wider menu of responses — in particular the currently popular suggestion that promulgating an International Banking Standard would significantly improve the safety and soundness of banking systems in developing countries.

Such a standard is not without appeal, but other approaches are probably necessary in developing countries where risks are usually greater, financial institutions are less diversified, markets are less

transparent, supervision is weak, and other ingredients critical to sound banking are either missing or scarcer than in industrial countries.

Caprio calls for a multipillar approach to safe and sound banking, one that would:

- Focus attention on factors that restrict banks’ ability and willingness to diversify risk.
- Give three key groups — owners (and managers), the market (including uninsured debtholders and other possible “co-owners”), and supervisors — more incentive and ability to monitor banks and ensure their prudent corporate governance.

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# **Safe and Sound Banking in Developing Countries: We're Not in Kansas Anymore**

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## **I. Introduction**

Widespread bank insolvency has been relatively commonplace in the last 15 years and quite costly. Although the typical banking crisis in an OECD country has been financed readily, albeit with some pain, in many developing countries the scope of the crisis and the cost have been enormous. Honohan (1996) courageously regresses resolution costs on a set of variables and finds that poorer countries tend to have more expensive crises as a share of GDP. Economists and other policy advisers have been responding to this development with a more concerted effort at the IMF, the World Bank and other multilateral development banks, and now through the G-10 deputies and the BIS, to put banking sector work in developing countries at the forefront of their efforts.

This paper will briefly review some of the salient facts related to the boom in banking busts in developing or emerging market economies, drawing heavily on earlier work (Caprio-Klingebiel, 1996a, b; Honohan, 1996; Lindgren, Garcia, and Saal, 1996; and Goldstein and Turner, 1996). When countries encounter banking crises, they tend to respond with changes in regulation and supervision, and not surprisingly some of these changes have been more effective than others. After reviewing briefly information on the scope and cost of banking crises in developing countries, section two will therefore focus on the policy responses taken by authorities in some of the 'early' crisis countries -- those which experienced insolvency episodes in the 1980s. Lastly, section three will review a wider menu of responses, and discuss in particular the suggestion that the promulgation of an International Banking Standard (IBS) would significantly improve the safety and soundness of developing country banking systems. Although this approach has a great deal of appeal, and may have some payoff in some of the higher middle income countries,

other approaches are likely necessary in developing countries where the risks usually are greater, financial institutions are less diversified, markets are less transparent, supervision is relatively weak, and other critical ingredients for successful implementation of a supervisory-based 'cure' for unsafe banking are absent. Given these differences, the paper concludes by arguing that bigger carrots and bigger sticks will be necessary in emerging markets if bank insolvency is to be successfully contained. Although improving bank supervision is a worthy goal, by itself exporting banking standards from industrial to developing countries likely will have relatively little impact on the safety and soundness of banking there in the next decade. The paper ends by calling for a multi-pillar approach to safe and sound banking, strengthening the incentives and capacity of owners and managers, the market, and supervisors to contribute to prudent corporate governance of banks, as well as for greater attention to factors restricting banks ability and willingness to diversify risk. Only if each of these four pillars is strengthened will the resulting system perform the important intermediation functions prudently.

## **II. The Epidemic and the Response**

### *The Boom in Bust Banks*

The boom in banking crises, both overt and covert, around the world in the last 15 years has led to increased attention to this issue and better, but still inadequate, information about these problems. Figures 1 and 2 summarize the incidence of banking problems in two main data sets on bank insolvency developed at the World Bank (Caprio and Klingebiel, 1996a, b, hereafter C-K) and the IMF (Lindgren, Garcia, and Saal, 1996, henceforth LGS). Although the data sets clearly overlap, there are differences. C-K's

systemic bank episodes are those in which capital and provisions were, or were judged likely to be, overwhelmed by loan losses, or in other words, in which net worth of the banking system as a whole was near zero or negative. Even though the authors recognize that insolvency can become systemic even while net worth of the system clearly is positive, this definition of systemic was chosen for its ease of implementation, and because most economists would agree that negative net worth for the system as a whole constitutes a systemic problem, even if some banks are still solvent. Importantly, this data set mixes countries with overt crises, in the form of bank runs, collapses, and government takeover, with more silent financial distress, in which banks are open but insolvent. LGS instead distinguish between the two: their ‘crisis’ countries in Figure 2 show overt crises, and then they partition the rest of the world into either significant or insignificant/no information cases relying largely on judgment (LGS, p.20). Clearly judgments and terms differ. Thus LGS refer to the Canadian banking problems in the early 1980s as “significant,” whereas for C-K Canada is not even considered a “borderline” case, meaning that it was not thought to be close to a systemic crisis in the sense in which they define one. Still, under either set of definitions, banking problems appear widespread, and likely affected most of the developing and transitional countries in the last 15 years.

Why should anyone be concerned about banking crises? As these and other studies note, they have entailed high fiscal costs, often of 10-20% of GDP. Although such sums are ‘only’ transfer payments, their magnitudes are sufficient to derail stabilization programs. Governments in theory could finance these costs over a 10-20 year period, but in practice few have access to long term finance. Thus governments hit

with large negative net worth in their banking systems must consider a variety of unattractive choices. The low cost choice, at least in its immediate impact on the budget, is to let depositors bear the burden. Few governments, especially in the post-War period, have been willing to make this choice, especially when losses were large, in all likelihood because such a choice was perceived as dangerous to the administration's survival or perhaps as dangerous to the economy and leading to a long term disintermediation of the formal financial system. Baer and Klingebiel (1996) show that the latter effect did not follow in selected cases.<sup>1</sup> Nonetheless, either because prevalent opinion among policy makers assumes extensive fallout from the imposition of losses on depositors, or due to political concerns, most governments try to hide the cost of bank failures.

A popular choice is to bury the losses in the central bank's balance sheet. However, this solution is risky: although the losses may remain hidden for some time, they eventually put pressure on the central bank to find revenue sources. Unless the economy is hit by positive shocks, the danger is that the central bank will resort to money creation as net income declines. The sharp rise in inflation in Argentina (from 165% in 1982 to over 600% in 1984-85), the Philippines (from 10% in 1983 to 50% and 23% in 1984-85, respectively) and to a lesser extent in Chile (in the early 1980s) likely derives in large part from this method of covering the cost of bank insolvency. Lastly, if domestic capital markets lack sufficient depth, foreign borrowing has tended to be favored, with all the usual debt servicing problems.

Systemic bank insolvency also should be a source of concern because it demonstrates that capital has been -- and often continues to be -- misallocated. Occasionally countries charge out of a banking crisis with rapid growth, or at least begin



to see more robust growth after a period of several years as reforms take root. Far more prevalent is not just a drop in growth but a recovery that is sluggish relative to the pre-crisis period. Table 1 shows this latter effect, reporting the average growth rates 5 years prior to and 5 years following each of the insolvency episodes in the C-K sample, and the slowdown is statistically significant and slightly larger in developing than in industrialized countries. To be sure, this holds nothing constant, and many factors

**Table 1. Percentage Change in GDP Five Years before and after the Initiation of Bank Insolvency, 1975-1994** (No. of observations in parenthesis)

Region	Mean GDP Growth	
	Five year before crisis	Five years after crisis
All Crisis Cases*	3.2% (290)	2.0% (240)
subsample		
OECD countries*	2.8% (50)	1.8% (52)
Non-OECD countries*	3.3% (240)	2.0% (188)
<u>Memo:</u>		
non-crisis countries**	2.2% (80)	2.3% (64)

\* A t-test (significant at  $P < 0.05$ ) indicates that the pre- and post-crisis means differ.

\*\* Since there was no crisis in these countries, the sample was split in half, i.e., 1980-87 for the first observation and 1988-94 for the second. Although it should not be necessary, a t-test indicates that there was no significant slowdown in the non-crisis countries.

Source: IMF, International Financial Statistics, and Caprio and Klingebiel, 1996b.

undoubtedly determine growth, but a more rigorous econometric examination will have to await as many crises were in the early 1990s, still too recent to yield statistically

meaningful results.<sup>2</sup> Nonetheless, the fact that the non-crisis countries did not experience a similar decline is consistent with the potential growth-reducing effects of a bank crisis. Also, although many argue that poor growth causes banking crises, on average countries experiencing banking crises saw sustained weaker growth following episodes of bank insolvency, compared with the pre-crisis period.

Widespread bank insolvency means that incentives for taking prudent risks are overwhelmed by other calculations, as low or negative net worth will encourage excessive risk taking (Kane and Yu, 1994) or looting (Akerlof-Romer, 1993). Banks that excel in allocating one part of their portfolio imprudently seldom also excel in allocating the rest of their portfolio brilliantly, and it is likely that the same is true of banking systems. If so, this would mean that countries which experience banking crises would grow more slowly than others, or that those with a larger banking crisis (or more insolvent system) would grow slower than those that are more solvent, both directly, because the latter would have better allocated resources, and indirectly, as fewer/smaller crises would lead to greater financial sector development and hence higher growth. Unfortunately, it is not yet possible to test this hypothesis, as most of the episodes of insolvency in either data set are quite recent, and thus insufficient time has passed for a proper test.

The brief and recent literature on banking crises in developing countries argues that a variety of macroeconomic and microeconomic factors account for systemic or significant bank insolvency. C-K note that based on studies of a subset of 29 episodes of insolvency in their data set, "... in *all of them*, deficient management, faulty supervision and regulation, government intervention, and/or some degree of connected or politically

motivated lending are cited as primary factors behind bank insolvency;” macro factors also were deemed important, but were not quite as omnipresent. In many cases macro factors, such as an overvalued exchange rate or a large terms of trade decline, often are proximate causes of bank insolvency, but it is by no means clear that they are the most important, much less the sole culprits. Incentives facing bankers matter in determining how they respond to the environment in which they operate. In many countries, these incentives are skewed, as bankers enjoy limited liability for any losses, and governments provide implicit or explicit deposit insurance, yet have little legal, fiscal or supervisory capacity to intervene when banks engage in excessive taking. Brock (1996) argues that as long as the institutions overseeing banks are underfunded, there will be a ‘guarantor risk,’ which will affect private behavior and induce more risky lending. He states,

“Whatever may appear to be the proximate cause of the next financial crisis in Chile -- such as a speculative attack on the exchange rate, a perceived lack of credibility of government fiscal policy, or an external shock -- the severity of that crisis will be strongly influenced by the regulatory framework as it affects bank behavior during the coming years” (p. 49).

So while it may be safe to conclude that banking problems in developing countries have myriad causes, it may be more accurate to say that there are a wide variety of proximate factors. But the underlying weakness, namely the incentive system (or regulatory environment, which in large part determines incentives) is where one should look for lasting cures to systemic insolvency.

#### *Policy Response in Practice*

When nonfinancial firms become insolvent, the closure or restructuring process involves a significant amount of pain: shareholders lose most or all of their investment, workers are laid off, managers are sacked. The restructured nonfinancial firm usually has its

business pared down to a smaller but still profitable core as a stand alone activity or by merging with a solvent company, and access to outside finance usually is sharply curtailed until these steps are well underway.<sup>3</sup> One might therefore expect that the hallmark of a successful handling of bank insolvency would be similarly painful steps, even if macro factors were partially responsible for the problem. C-K find that there were relatively few countries that handled bank insolvency successfully, based on indicators of financial depth, real interest rates, credit growth to the private sector, and the recurrence of another crisis.<sup>4</sup> Perhaps it is not surprising, then, that in remarkably few episodes is there evidence of significant pain, and delay in loss recognition appears to be the most common characteristic of most experiences.

Chile and Malaysia stand out, in terms of the aforementioned indicators, as having superior post-crisis performance, and also in terms of the response by the authorities to the crisis. To be sure, in Chile there was considerable delay in the early 1980s in dealing with bank insolvency, as regulators applied easier rules to postpone loss recognition. In both cases, ultimately, managers were sacked, shareholders bore losses, and fraud was prosecuted. More recently, increased attention was devoted to improving the information available to banks and other market participants; Chilean banks are now required to be rated by private rating agencies twice a year, and there are also mandatory restrictions on banks' portfolios as leverage increases.<sup>5</sup> In Malaysia, a credit bureau was established on borrowers, so that banks could better determine how borrowers might perform. Another performer with mostly favorable post-crisis indicators, New Zealand, has moved to a market rating system in which the authorities do not collect or maintain information that is not in the public domain, and have otherwise moved strongly to improve incentives in

banking (Box 1). Most of the changes in this case have only been effected in 1996, however, so it is too early to say how they have been functioning.

#### **Box 2.1 New Zealand's Market-Based Approach**

Following a wide-ranging review of the role of government, the New Zealand authorities recently adopted a more market-oriented approach to financial regulation. The objectives of regulation and supervision are to promote the soundness and efficiency of the financial system, and to minimize damage to the system in the event of bank failure. Explicitly, the authorities seek to both maintain an open banking system and to keep compliance costs low. The Reserve Bank now exercises its monitoring role using banks' public disclosure statements, and continues to enforce a minimum capital requirement based on the BIS Accord.

The market-based elements focus on disclosure and incentives. All banks are required to issue public disclosure statements quarterly, including information on: the balance sheet and income statement; the composition of the board and any conflicts its members may have; asset quality and provisioning; loan concentration data to individual parties and to sectors; lending to related parties; risk management systems; capital adequacy and off balance sheet exposure; market risk exposure; any guarantees; and their credit ratings. This extensive disclosure system likely induces bank management to behave more prudently; full disclosure must be available on demand, and abbreviated statements have to be posted in all bank branches. Interestingly, if the authorities uncover information not available to the market, they are compelled to disclose it within the quarter.

Regarding other incentives, directors must sign the disclosure statements as not containing any false or misleading information, subject to not only criminal penalties but also unlimited liability. The first disclosure statements were made only in early 1996. Bankers and bank directors have not been supportive of this system, as it reduces the burden on government supervisors at their expense. Politically, it is difficult to say if such a system could be adopted elsewhere. Over 90% of the New Zealand banking system is foreign owned, though much of it by a close neighbor (Australia). It likely is more than coincidental that the country (New Zealand) with the strictest disclosure requirements on banks and the stiffest penalties for disclosing erroneous information (unlimited liability) also has a largely foreign-owned banking system. Nonetheless, the direction in which the authorities have moved is similar to that being pursued in a number of countries intent on reducing the exposure of taxpayer funds to bank failure.

Source: Peter Nicholl, "Market-Based Regulation," mimeo, The World Bank

The Argentine case also is instructive. Argentina experienced banking crises in the early 1980s, the late 1980s, and 1995 (the latter as fallout from the Mexican crisis). Although financial depth has not recovered to the levels seen prior to the first crisis, it was rising in the 1990s and appears to have recovered quickly from the early 1995 episode. So although Argentina only rates a 'two' on our scale, this may be misleading. The most recent event featured a run on smaller, provincial banks, plus a run on the currency for a few months when the commitment to the 1:1 convertibility of the peso into the dollar was in doubt. But the system recovered reasonably well, and the money center banks, whose health did not appear to be in question, benefited from the consolidation, as the number of banks declined from 200 in 1994 to 124 in early 1996 (Caprio, Dooley, Leipziger, and Walsh, 1996). Also, the Argentine authorities instituted a number of policies, such as raising minimum capital requirements to a risk-weighted 11.5%, one of the higher levels in the world. They also significantly strengthened supervision in 1994, and, in 1996, instituted a subordinated debt plan, requiring the periodic issuance of large lumps of subordinated debt to create a class of uninsured creditors with a strong incentive to monitor the banks. Clearly, it is too soon to tell how effective these measures will be.<sup>6</sup>

The Philippines, another relatively good post-crisis performer with a score of 'three,' saw a marked improvement in the supervisory and regulatory framework: an independent central bank was established, with the losses from the 1980s crisis carved out of its balance sheet, the deposit insurance fund was recapitalized, government interventions in banking were reduced, and supervision clearly upgraded. Still, the intervention by the judiciary in the bank closure process (by requiring a mandatory 90-day minimum notification of banks after insolvency has been determined, so that

shareholders have the opportunity to turnaround their bank before the authorities step in), would appear to be excessively generous to shareholders and managers. Moreover, the pace of real credit growth to the private sector in recent years has been quite rapid, as much as 5 times real GDP; such rapid expansion has proven difficult to manage safely in a variety of countries.

The above list accounts for most of the relatively limited success stories. In many other countries, efforts to effect change in the regulatory/incentive environment were distinctly muted or absent entirely. For example, in one African country, only a small fraction (5%) of written off loans was collected, less than that spent on the collection effort. And in Guinea, after virtually the entire banking system was closed in the mid-1980s, there was little attempt to change the accounting, regulatory, or supervisory approach, nor was disclosure improved; another crisis ensued in the early 1990s. Moreover, few of the many small countries with bank insolvency problems have moved to improve diversification of bank portfolios by encouraging more foreign banks or greater foreign holdings by local banks. And fewer still have acted to close banks or to reduce state ownership in finance. Although merely relying on private ownership without improving the incentive environment is dangerous -- witness Mexico in the early-mid 1990s -- continued state ownership has not yet been able to produce efficient, well managed banking.

Lastly, in several countries there has been an attempt to upgrade supervision, though no clear evidence that this has been successful. Many developing countries are experiencing improved macroeconomic environments, thanks both to improved domestic policies and low interest rates in industrial economies. Still, even where a favorable

macro draw has restored banks to solvency, the underlying risks appear to be little changed except in very few countries.

### **III. Standards and Rules: the salvation?**

In searching for cures to any problem, a popular approach is to look for best practice and argue that it should be universally applied. One problem with this strategy with respect to dealing with bank insolvency is that it is quite recent to draw conclusions about how robust different remedies or regulatory structures are in practice. As Kane (1993) suggests, regulators and regulatees are locked in a dynamic game, and it is always dangerous to assume that the game is over, not least when favorable macro climates are bolstering bottom lines.

Another difficulty with applying best practice is that it is difficult to find. In arguing for an International Banking Standard (IBS), Goldstein (1996) implicitly takes the industrial countries as the standard, even though a look at the IMF map of banking problems (Figure 2) shows that these problems are almost (at least) as common in industrial as in developing countries. True, the data do suggest that bank insolvency is a less costly problem, relative to GDP or total bank credit, in the OECD area than in developing countries, but the smaller size of the latter countries, their larger shocks, and more concentrated economies alone would lead one to predict that their bank crises would be more costly. In other words, if industrial economies were characterized by the same quality of bank supervision as in developing countries, then one would expect to see a markedly lower incidence of banking problems among richer countries because of their other advantages, if, that is, the quality of bank supervision matters in determining the



scope of banking problems. Thus one could conclude that it is not clear that richer countries have 'gotten supervision right,' much less that effective supervision is a feasible, near term goal for developing countries.

Third, applying best practice in banking or bank regulation should be undertaken with care, and with the realization that institutions -- the rules, procedures, and norms that frame decisions of economic and political actors -- are crucial determinants of how well any reforms can be transplanted to a new setting. Well intentioned efforts fail: a World Bank evaluation of 1170 project components aimed at institutional development found that 48% exhibited partial, and 23% negligible, achievements (de Capitani and North, 1994). In trying to lessen the incidence and cost of bank insolvency, one is attempting to get a group of powerful and usually wealthy bankers, in many cases with close ties to the current authorities, to behave in a socially more prudent fashion in the face of conflicting private incentives, such as to refrain from big bets when their downside risks are covered, or to ignore officials' guidance on lending decisions, even when to do so will strengthen or allow them to retain their monopoly power. Not surprising, then, such reforms often are implemented in half measures and enforced at best with some irregularity.

One key institution that differs dramatically in many developing countries from their industrial counterparts is the revenue system: not just the weak revenue base associated with low incomes, but the efficiency of the system and the attitudes towards paying taxes. Indeed, a key reason why many governments in developing countries relied on financial repression was that they needed to make up for the inadequacies of the formal tax system.<sup>7</sup> Revenue problems make it likely that the government will be providing an underfunded guarantee for bank depositors, and several observers, such as

Brock (1996, noted above), argue persuasively that it is this underfunding of the guarantee scheme that accounts for systemic insolvency problems. Regardless of how sincere a government may be in upgrading its supervision or in, say, instituting prompt corrective action and structured early intervention, these attempts will likely founder to the extent that the supervisory authorities (or deposit insurer) cannot move against insolvent institutions due to a lack of funding.

With these caveats in mind, what should developing countries do? As noted above, the reform being most discussed at present is the issue of an IBS, defined as an attempt to bring "...more developing countries more quickly up to a minimum level of sound banking practice and strong banking supervision (Goldstein, 1996, p.15)," where the IBS is to include common disclosure requirements, an accounting and legal framework, transparency of government involvement, limits on connected lending, BIS or higher risk-weighted capital ratios, consolidated supervision among host and home-country supervisors, and perhaps more importantly, some form of structured early intervention and prompt corrective action as embodied in FDICIA.

To be sure, guidelines in many of these areas, along with an education program to teach officials (where needed) and electorates about the importance of each are useful. Indeed, the World Bank developed a set of supervisory guidelines in the early 1990s and since then has been promulgating and improving them. But it is one thing to propose best practice guidelines and distinctly different to say that a single set of rules should be imposed on all countries as the cure for what ails their banks. To see the issues and difficulties, consider limits on connected lending and bank ownership. First, are limits a good idea? Certainly the Chilean crisis in the early 1980s is a convincing example of the

dangers of such lending, at least until one reads Lamoreaux (1994), who argues that connected lending was part of the reason for the growth of the New England economy and the success of early 19th century banking there.

But even accepting that connected lending is to be avoided, or at least controlled,<sup>8</sup> can it be accomplished merely by promulgating limits? In fact an increasing number of countries have such limits, but it is rather easy to circumvent them. Although Goldstein argues that practices making it difficult or impossible for supervisors to verify the accuracy of reports pertaining to connected lending should be outlawed, this is likely to be a Herculean task. Many developing countries feature highly concentrated wealth and income and a few are dominated by several large families.<sup>9</sup> Indicative of this concentration, in data for a cross-section of 49 industrial and developing countries (LaPorta, Lopez de Silanes, Shleifer and Vishny, 1996), ownership of nonfinancial firms (the only ones for which they obtained data) was more concentrated in developing than in industrial countries, and authors do not make any attempt to correct for the possibility that large shareholders might be affiliated with one another. Also, the stock market concentration ratios for industrial and developing countries shows that concentration, measured by the capitalization of the largest 10 listed firms to total market capitalization, was .44 in developing countries, compared with .31 in industrial economies (.28 if the lower income industrialized countries, Greece and Portugal, are omitted or included with the developing countries). In addition to greater concentration, institutions in many countries often are less oriented to a democratic system of checks and balances than, say, in the United States. These two characteristics together make the evasion of limits on

connected lending 'child's play.' For the same reasons, limits on the ownership of banks can be and are easily rendered inoperative.

A second aspect of an IBS, the improvement of the accounting and legal framework, also is difficult to effect, and certainly cannot be accomplished soon in many countries; more rapid progress has been seen in upper middle income countries, such as Argentina and Chile, but would appear to be unrealistic in the many developing countries, certainly in the 90 economies with per capita GDP below the upper middle income level.<sup>10</sup> To argue otherwise is tantamount to suggesting that legal reform could be achieved by mailing the U.S. legal code to a low income country. Many in fact have quite serviceable laws or codes, but the judicial system short-circuits implementation. Judges, lawyers, and citizens need to be educated if legal reform is to take root. For accounting, trained accountants are needed -- more likely in middle income than in low income countries -- and it takes time, effort, and incentives to get a chart of accounts accepted.<sup>11</sup> How would collateral be valued where markets are thin? Can a loan classification system be applied with few trained bankers or verified with few skilled supervisors? And even if supervisors had statutory authority to carry out their functions, how would supervision operate if supervisors are closely connected to the industry, such as through family or political ties, or if supervisors can be sued easily for their actions? And if institutions are linked through family ownership, how valid are any set of accounts as a guide to understanding the viability and prospects of an individual firm?

A third aspect of the IBS, the idea of mandating prompt corrective action and structured early intervention, also appears to be a laudable goal, namely lessening the extent to which supervisory forbearance can occur. Again, however, the empirical

evidence that such a system will limit bank insolvency is not yet apparent. Accepting that it will be forthcoming, Berger (1993) argues that a good accounting (and loan classification!) system is a requirement for FDICIA to operate well, as decisions are to be made on capital levels. Moreover, even if the U.S. legal system tolerates a government closing private businesses while they still have positive net worth, in many other countries it is sufficiently difficult to close those with negative net worth that it is hard to believe that significant progress will be made soon. As noted above, supervisors may well have close links with the regulatees, and where governmental checks and balances are weaker, it will be difficult for anyone to oversee supervisory compliance. Even in the United States, proponents of prompt corrective action and structured early intervention acknowledge that there may still be a 'too big to fail' problem. But in developing countries, banking systems often are more highly concentrated, meaning that it may be more difficult still to believe that any prescribed 'automatic' intervention or closure steps will be taken. Where concentration in banking is linked to concentration of wealth and political power, it is even less likely that such changes will be readily introduced or honored even if enacted. This is not to discourage attempts to make banking more safe and sound, but rather to suggest that pre-programmed changes cannot be quickly implanted, if ever, in a variety of diverse institutional settings, and may create a false sense of security.

Lastly, Goldstein suggests that higher capital should be part of an IBS to the extent that risks are higher there, and this too would be set as part of the standard. Although encouraging some way to better align bankers' incentives with those of society is prudent, and higher minimum capital ratios has been argued by several, including this

author, as a possible way to do so, it is by no means clear that it is the best way. First, quantitative limits on capital may be useful but it is far harder to mandate the quality of capital. Owners often put up resources of differing degrees of quality, including borrowing funds from their own institution, and this can be difficult to detect, especially in countries dominated by relatively few groups or families. Second, the effect of higher capital on risk taking is theoretically ambiguous: it is quite possible that a higher requirement could lead owners to select a point further out on the risk-return frontier, and empirical investigations find relatively little difference in the probability of failure from different capital levels (Berger, Herring, and Szego, 1995). So if authorities in a country, after understanding the alternative approaches, argue that raising capital may be the only feasible way, given their country's institutions, to bring about more prudent banking, it would be wise to support this attempt. Such support, however, is a far cry from mandating this approach.

What are the alternatives -- not just to raising capital but to an IBS? There are three distinct groups that can monitor banks: bank owners (and managers), the market (including uninsured debtholders and other possible 'co-owners') and supervisors, and these groups could be regarded as three of the four pillars supporting a safe and sound banking system. Emphasizing the need to build the capacity and incentives for each of these groups to perform their function effectively would appear sensible, given both the uncertainty about which group is more effective and because ideally these three monitors would complement one another. In official circles, the pendulum has swung excessively in favor of supervision; given the arguments above, greater emphasis on owners and the market is warranted. Moreover, it would seem indispensable to rely on local authorities

and their assessment of their own institutions in deciding on the balance of emphasis among the different monitors. Local officials have to be relied on to decide how to balance these different monitors and how any changes would work in their own institutional setting. Greater reliance on owners and the market is attractive for several reasons:

- ◆ it resembles closely the path followed by various industrialized nations when they were industrializing;
- ◆ it allows poor countries to employ scarce human capital in more directly productive pursuits, rather than in bank supervision; and
- ◆ improving incentives and information for owners and the market to monitor banks is likely to payoff by itself and would complement the development of supervision.

Improving incentives for owners, while minimizing the need for supervisory oversight, likely can be accomplished either by greater liability limits, increasing the franchise value of bank licenses (see Caprio, 1997), or by higher capital. Unfortunately there has not been sufficient experimentation, at least in recent times, with these different approaches, so statements about 'best practice' are on empirically shaky ground. Nor is it clear that one approach need work best in all economies. In particular, solutions such as relying more on franchise value or higher liability limits are attractive in economies in which capital is scarce and the capacity and institutional structure conducive for effective supervision (in particular, independence of the supervisory agency) are weak.

The market's ability to oversee banks would be fostered not only by greater disclosure but also by using mutual liability, subordinated debt or other ways to create large, uninsured debtholders. Mutual liability appeared to work well in U.S. clearinghouse associations in the 19th century, and in Canada, but more recent evidence is hard to uncover.

Importantly, convincing governments that substantially beefing up supervision (or any of the three above pillars) alone will produce safe and sound banking may well be unwise in small developing countries. Broad diversification is the fourth pillar supporting a sound financial system. Where risks are both high and concentrated, it is difficult to believe that governments will raise capital (or liability limits) sufficiently high or allow immensely profitable banking to offset the disadvantages of large shocks and highly covariance. In such cases, governments should only allow well diversified banks, whether foreign or domestic. If a greater role were accorded the incentive system in ensuring safety and soundness, this would become more apparent, for example with better diversified banks being able to hold less capital.

Each of these various approaches has its strengths and weaknesses, just as with the IBS. Indeed, that is the point: there is no empirical evidence to point to, or at least not a large sample, which would allow a disinterested observer to conclude as to the superiority of one path. Until such evidence is assembled, it would seem appropriate for industrial country authorities and multinational organizations to encourage developing counterparts to strengthen all four pillars and to advise them on the pros and cons of the various alternatives. The IBS approach relies excessively on supervision and discounts



the importance of owners, the market, and diversification as ways to enhance safety and soundness

#### **IV. New Directions: Back to the Future?**

To deduce from the scope and magnitude of banking crises worldwide that monitoring and incentives are insufficient would appear to be safe. An early view of banking crises concluded,

...any suspension of specie payments, any bank failure, in fact any default of payment whether by a government or by an individual, can usually be connected with certain external economic causes. In the last analysis the answer to this question depends not upon the reasoning which one employs but the premises from which one starts: if we assume that business depressions and 'unfavorable trade balances' are economic acts of God' against which the individual, the bank, or the government is powerless, then the plea that these unfavorable factors were the 'cause' has a plausible ring. But if we recognize that ups and downs are recurring, that a well managed organization must be prepared for the lean years when they come, and that a factor of safety is just as essential in an economic institution as in an engineering structure, then this plea of unfavorable circumstances as the cause becomes an admission of poor management, and not a justification. [Fetter, 1931, p. 31]<sup>12</sup>

This view is an extreme one. Just as no one would recommend constructing only those buildings able to withstand a once-in-a-millennium shock, it would be costly to establish financial systems capable of surviving similarly rare events, as they would in all likelihood be too averse to taking prudent risks. Still, the direction in which Fetter points policy makers is toward focusing on the incentive system in which banks operate. The key debate, and one that has not yet begun to be discussed openly, is how robust should banking systems be made. Although most would agree that all should be able to

withstand seasonal shocks, and likely even those that occurred every several years, should they be able to tolerate shocks of the type seen every 10, 20, or 50 years?

However this question is answered, it would appear that the safeguards needed would be greater in developing countries, due in part to the greater volatility there. Whereas volatility in policies is at least capable of being controlled, the small size and concentrated nature of developing to industrial economies means that shocks there will be larger. So any dose of medicine need to be stronger.

This paper also argued that cures for bank insolvency have to be attuned to the institutional settings of developing countries. Poor countries do not differ from richer ones only in their GDP per capita, but also in an array of institutions that bear on how effective financial intermediation will be and on how attempts to fix the regulatory or incentive environment will be. Also, industrial economies put in place a safety net for the banking system when they had reached a high level of development -- not just a higher income level but more effective legal institutions and a greater reliance on democratic processes and arms-length transactions. In short, just like in the 1950s economists learned that 'merely' increasing capital would not convert poor countries into rich ones, it is unlikely that we will find that standardizing some regulations and improving supervision will cure the bank insolvency epidemic. Thus a more appropriate role for multilateral institutions and OECD governments is to encourage a multi-pillar approach to achieving an incentive-compatible banking system as well as to foster more research into what is still a remarkably under-researched field: how insolvency comes about, how authorities deal with it, and how different approaches compare and affect the development of the financial system and growth.

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## Notes

<sup>1</sup> Interestingly, Baer and Klingebiel (1996) find, based on a study of 5 countries (Estonia, 1992; Argentina, 1989; Malaysia, 1986; Japan, 1946; and the United States, 1933), that imposing losses on depositors had minimal negative impact on economic performance when "policy makers took a comprehensive approach to resolving financial system distress and sought to ensure that only well capitalized institutions will remain in operation (B-K, p 196)."

<sup>2</sup> Thus only those countries with 5 years of post-crisis data were included.

<sup>3</sup> In banking, this reaction is often short-circuited by implicit or explicit government deposit guarantees, making it possible for insolvent institutions to gather deposits. The opaque nature of banking contributes to the ability of bankers to delay loss recognition.

<sup>4</sup> Countries were awarded one point each if following an episode of bank insolvency: financial depth increased, real short term deposit interest rates were neither excessively negative (below -5%) nor above 10%, real credit growth was positive but less than 2.5 times real GDP growth), and there was no repeated crisis. Malaysia, Chile, Australia, Germany, the United Kingdom, and the United States scored a 'four' on these criteria, 12 countries scored a 'three,' 23 a 'two,' 16 a 'one,' and 5 a 'zero' (C-K, 1996b, Table 6).

<sup>5</sup> In the restructuring of bad debts, Chilean banks had their bad loans taken over by the Central Bank, with the stipulation that the originating banks had to buy them back over a period of time (which eventually was extended). The resignation this year by former Central Bank Governor Roberto Zahler was associated with an attempt to put some of the cost onto that institution, rather than on the commercial banks or the Treasury, and indicates that there still may be some incentive problems in the banking system.

<sup>6</sup> The commitment to a currency board -- convertibility of pesos into dollars -- means that the central bank cannot serve as a lender of last resort. Before the most recent crisis, Argentina explicitly had no deposit insurance, and depositors at small banks lost when these institutions failed. With the 1995 crisis, the authorities instituted a deposit insurance scheme, covering \$20,000 (about 2.5 times per capita GDP) per depositor. Since the deposit insurance fund cannot by law draw on the budget, and the central bank has little discretion in expanding the money supply, the authorities evidently decided that they need a highly incentive compatible regulatory system.

<sup>7</sup> See Roubini and Sala-i-Martin (1995) and Bencivenga and Smith (1992). The latter argue that given the underdevelopment of the revenue system, a resort to financial repression may well be optimal.

<sup>8</sup> In fact it is likely that the 'insider lending' Lamoreaux cites was controlled, in that, even though depositors evaluated banks on the basis of the underlying businesses in which bank directors were involved, they also would have disciplined banks from lending too much to one connected business. Also, this form of connected lending functioned well at least in part due to the importance of reputation. Failed bankers could not so easily de-camp to other locales. Thus it may not be happenstance that this form of banking diminished as migration became more popular.

<sup>9</sup> Gini coefficients for the 1986-93 period are as follows: Sub-Saharan Africa, 44.7; East Asia, 36.2; South Asia, 34.1; Middle East and North Africa, 40.8; Latin America, 50.2; OECD, 33.2. See Deininger and Squire, 1996.

<sup>10</sup> A per capita GDP of approximately \$3000 was the cutoff point for the upper middle income range.

<sup>11</sup> I am indebted to Fernando Montes-Negret for pointing out that the Chinese Federation of Accountants estimates that they need to train 100,000 accountants by the year 2000 and 300,000 by 2010!

<sup>12</sup> Thanks to Phil Brock for calling this quote to my attention.

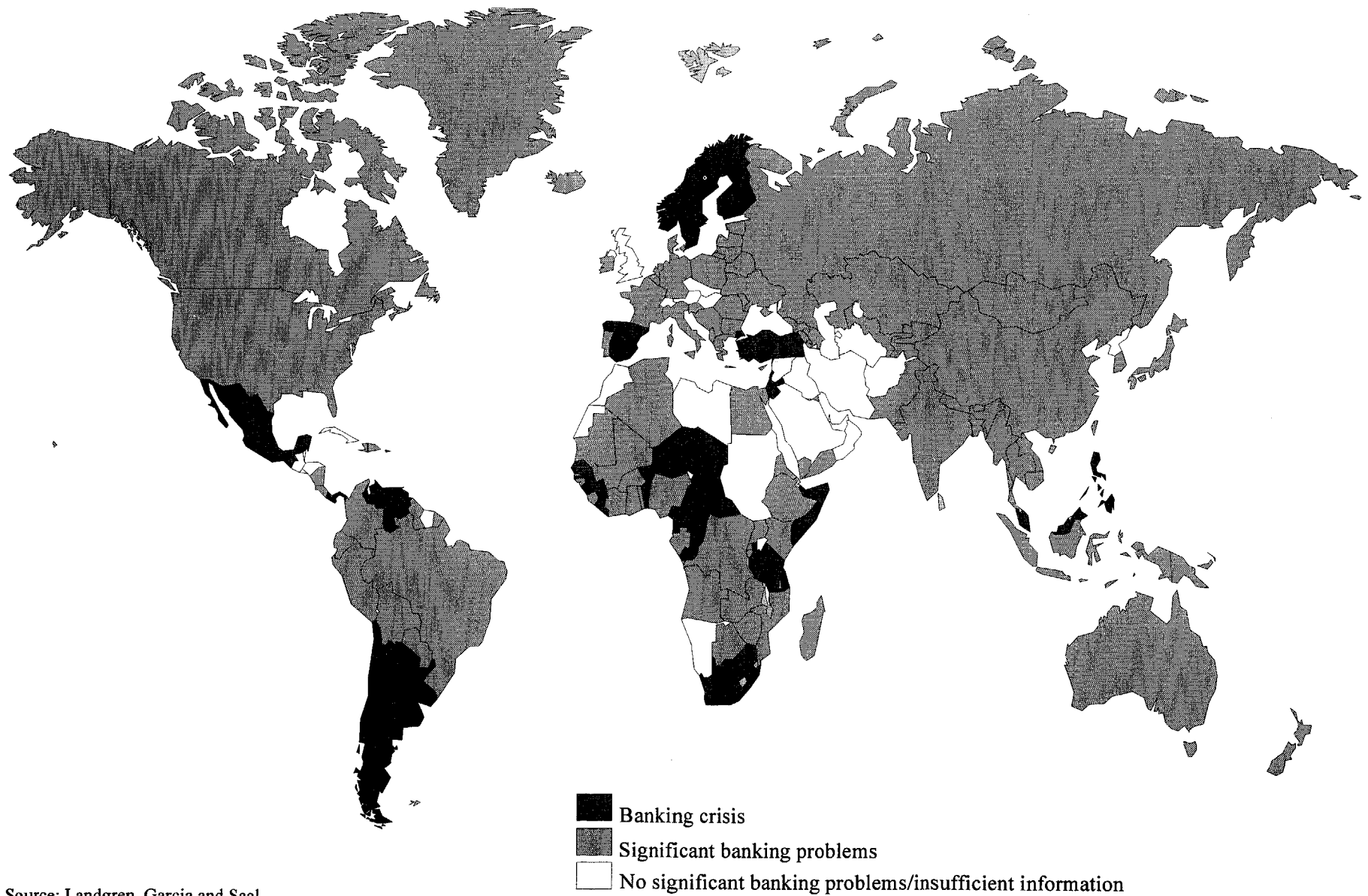
A world map illustrating the global distribution of banking crises. The map uses three categories to color-code countries:

- Systemic bank crises:** Represented by dark gray shading. Countries include the United States, Canada, Mexico, Brazil, Argentina, Chile, Peru, Colombia, Venezuela, Ecuador, and several countries in Africa (including Nigeria, Kenya, and South Africa).
- Borderline and smaller banking crises:** Represented by medium gray shading. Countries include the United Kingdom, France, Germany, Italy, Spain, Portugal, Greece, Turkey, India, and Japan.
- No bank crises/insufficient information:** Represented by white shading. Countries include Russia, China, India, and many countries in Africa, Asia, and South America.

Source: Corbin and Klingebiel, 1996

**Source: Caprio and Klingebiel, 1996.**

**Figure 2 Banking Problems Worldwide, 1980-96**



Source: Landgren, Garcia and Saal.





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